

## **EXHIBIT B**



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☐ P51993 Reports Alpha-(1,3)-fucos...[gi:1730136]BLink, Conserved  
Domains, LinksComment Features Sequence

**LOCUS** P51993 359 aa linear PRI 04-DEC-2007

**DEFINITION** Alpha-(1,3)-fucosyltransferase (Galactoside 3-L-fucosyltransferase) (Fucosyltransferase 6) (FucT-VI).

**ACCESSION** P51993

**VERSION** P51993.1 GI:1730136

**DBSOURCE** swissprot: locus FUT6\_HUMAN, accession P51993;  
class: standard.  
created: Oct 1, 1996.  
sequence updated: Oct 1, 1996.  
annotation updated: Dec 4, 2007.  
xrefs: M98825.1, AAA99222.1, L01698.1, AAB03078.1, U27333.1, AAC50192.1, U27334.1, AAC50193.1, U27335.1, AAC50194.1, U27336.1, AAC50195.1, U27337.1, AAC50190.1, U27332.1, AAC50191.1, U27337.1, AAC50196.1, A45156, I39048, I39049  
xrefs (non-sequence databases): RefSeq:NP\_000141.1, RefSeq:NP\_001035791.1, UniGene:Hs.611846, UniGene:Hs.695240, Ensembl:ENSG00000156413, GeneID:2528, KEGG:hsa:2528, H-InvDB:HIX0014674, HGNC:4017, MIM:136836, PharmGKB:PA28433, ArrayExpress:P51993, CleanEx:HS\_FUT6, GERMOnline:ENSG00000156413, GO:0005794, GO:0046920, GO:0042355, GO:0006486, InterPro:IPR001503, PANTHER:PTHR11929, Pfam:PF00852

**KEYWORDS** Alternative splicing; Glycoprotein; Glycosyltransferase; Golgi apparatus; Membrane; Polymorphism; Signal-anchor; Transferase; Transmembrane.

**SOURCE** Homo sapiens (human)

**ORGANISM** Homo sapiens  
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Primates; Haplorrhini; Catarrhini; Hominidae; Homo.

**REFERENCE** 1 (residues 1 to 359)

**AUTHORS** Koszdzin, K.L. and Bowen, B.R.

**TITLE** The cloning and expression of a human alpha-1,3 fucosyltransferase capable of forming the E-selectin ligand

**JOURNAL** Biochem. Biophys. Res. Commun. 187 (1), 152-157 (1992)

**PUBMED** 1520296

**REMARK** NUCLEOTIDE SEQUENCE [MRNA].

**REFERENCE** 2 (residues 1 to 359)

**AUTHORS** Weston, B.W., Smith, P.L., Kelly, R.J. and Lowe, J.B.

**TITLE** Molecular cloning of a fourth member of a human alpha (1,3)fucosyltransferase gene family. Multiple homologous sequences that determine expression of the Lewis x, sialyl Lewis x, and difucosyl sialyl Lewis x epitopes

J. Biol. Chem. 267 (34), 24575-24584 (1992)  
 PUBMED [1339443](#)  
 REMARK NUCLEOTIDE SEQUENCE [GENOMIC DNA].  
 Erratum: [J Biol Chem 1993 Aug 25;268(24):18398]  
 3 (residues 1 to 359)  
 REFERENCE Cameron, H.S., Szczepaniak, D. and Weston, B.W.  
 AUTHORS Expression of human chromosome 19p alpha(1,3)-fucosyltransferase  
 TITLE genes in normal tissues. Alternative splicing, polyadenylation, and  
 isoforms  
 J. Biol. Chem. 270 (34), 20112-20122 (1995)  
 PUBMED [7650030](#)  
 REMARK NUCLEOTIDE SEQUENCE [MRNA].  
 TISSUE=Kidney  
 COMMENT On or before Jul 18, 2007 this sequence version replaced  
 gi:[2134726](#), gi:[2134727](#), gi:[539596](#).  
 [FUNCTION] Enzyme involved in the biosynthesis of the E-Selectin  
 ligand, sialyl-Lewis X. Catalyzes the transfer of fucose from  
 GDP-beta-fucose to alpha-2,3 sialylated substrates.  
 [CATALYTIC ACTIVITY] GDP-beta-L-fucose +  
 beta-D-galactosyl-(1->3)-N-acetyl-D-glucosaminyl-R = GDP +  
 beta-D-galactosyl-(1->3)-(alpha-L-fucosyl-(1->4))-N-acetyl-beta-D-  
 glucosaminyl-R.  
 [PATHWAY] Protein modification; protein glycosylation.  
 [SUBCELLULAR LOCATION] Golgi apparatus, Golgi stack membrane;  
 Single-pass type II membrane protein. Note=Membrane-bound form in  
 trans cisternae of Golgi.  
 [ALTERNATIVE PRODUCTS] Event=Alternative splicing; Named  
 isoforms=2; Name=1; IsoId=P51993-1; Sequence=Displayed; Name=2;  
 IsoId=P51993-2; Sequence=VSP\_001780.  
 [TISSUE SPECIFICITY] Kidney, liver, colon, small intestine,  
 bladder, uterus and salivary gland.  
 [SIMILARITY] Belongs to the glycosyltransferase 10 family.  
 [WEB RESOURCE] Name=GGDB; Note=GlycoGene database;  
 URL=<http://ggdb.muse.aist.go.jp/ggdb/index.jsp>.  
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 1..359  
 /organism="Homo sapiens"  
 /db\_xref="taxon:9606"  
 gene  
 1..359  
 /gene="FUT6"  
 /note="synonym: FCT3A"  
 Protein  
 1..359  
 /gene="FUT6"  
 /product="Alpha-(1,3)-fucosyltransferase"  
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 /experiment="experimental evidence, no additional details  
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 /note="Alpha-(1,3)-fucosyltransferase."  
 /FTId=PRO\_0000221110."  
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 /region\_name="Topological domain"  
 /inference="non-experimental evidence, no additional  
 details recorded"  
 /note="Cytoplasmic (Potential)."  
 Region  
 5..358  
 /gene="FUT6"

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/region_name="Glyco_transf_10"
/note="Glycosyltransferase Family 10 (fucosyltransferase).
This family of Fucosyltransferases are the enzymes
transferring fucose from GDP-Fucose to GlcNAc in an
alpha,3 linkage. This family is know as
glycosyltransferase family 10; pfam00852"
/db_xref="CDD:85069"
Region
15..34
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/region_name="Transmembrane region"
/inference="non-experimental evidence, no additional
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/note="Signal-anchor for type II membrane protein
(Potential)."
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35..359
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/inference="non-experimental evidence, no additional
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/note="Lumenal (Potential)."
Site
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/note="N-linked (GlcNAc...) (Potential)."
Site
91
/gene="FUT6"
/site_type="glycosylation"
/inference="non-experimental evidence, no additional
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/experiment="experimental evidence, no additional details
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Site
153
/gene="FUT6"
/site_type="glycosylation"
/inference="non-experimental evidence, no additional
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/note="N-linked (GlcNAc...) (Potential)."
Site
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/gene="FUT6"
/site_type="glycosylation"
/inference="non-experimental evidence, no additional
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/note="N-linked (GlcNAc...) (Potential)."
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230
/gene="FUT6"
/region_name="Variant"
/experiment="experimental evidence, no additional details
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/note="Q -> K (in dbSNP:rs364637). /FTId=VAR_024464."
Region
348..359
/gene="FUT6"
/region_name="Splicing variant"
/experiment="experimental evidence, no additional details

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/note="RYQTRGIAAWFT -> SSGGLIYLRLPEASPA (in isoform 2).  
/FTId=VSP\_001780."

## ORIGIN

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61 iplillwtwp fnkpialprc semvpgtadc nitadrkvyp qadavivhxr evmynpsaqi  
121 prsprrrgqr wiwfsmesps hcwqlkamdg yfnltmsyrs dsdiftpygw lepwsqgpah  
181 ppnlisakte lvawavsnwg pnsarvryyq slqahlkvdv ygrahkplpq gtmmtelsry  
241 kfylafensl hpdyitekfw rnsleawavp vvlgpsrsny exflppdafi hvddfqsphd  
301 larylqeldk dharylsyfr wretlrprsf swalaftcac wklqeesryq trgiaawft

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Aug 28 2007 16:53:42